

THE STUDY OF CROSS REACTIVITY BETWEEN H5 CLADE 2.3.2
SERUM AND H5 CLADE 2.1.3 VIRUS BY USING
SERUM NEUTRALIZATION TEST

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ABSTRACT

The aim of this study was to find the effectiveness of H5 clade 2.3.2 vaccine to H5 clade 2.1.3 and 2.3.2 virus. The study was located at Avian Influenza Research Center (AIRC) University of Airlangga in the BSL-2 Laboratory. Study was conducted from June to July 2014. Serum of H5 clade 2.3.2 that be used had the titre of 2^7 by Haemagglutination Inhibition (HI) assay. Serum was tested with both viruses by using serum neutralization (SNT) assay in the MDCK cell culture. The data was analyzed by Reed and Muench Formula. Tissue Culture Infectious Dose 50 (TCID₅₀) of H5 clade 2.1.3 was 1.78×10^8 TCID₅₀/ml and H5 clade 2.3.2 was 5.6×10^7 TCID₅₀/ml. The SNT result showed that 1:100 dilution of serum was able to neutralize H5 clade 2.3.2 virus and protect at least 50% of culture cell. The serum was not able to neutralize H5 clade 2.1.3 virus.

Keywords: Avian influenza, H5N1 clade 2.3.2 Vaccine, Serum Neutralization Test (SNT), Cross Reactivity